

Subclinical Hypothyroidism in the Elderly and Survival: Need for a Randomized Clinical Trial

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Letter To Editor

Subclinical hypothyroidism (SCH) is defined as an elevated serum thyroid-stimulating hormone (TSH) level and free thyroxine and triiodothyronine levels within their reference ranges. The estimated prevalence of subclinical hypothyroidism in the general population is 3–8% [1]. The prevalence of SCH increased with age and ranged from 7% to 26% in studies of the elderly [2].

Most thyroidologists agree that all patients with SCH and a serum TSH level above 10 mIU/L should be treated with levothyroxine. The available data suggest that treatment of mild SCH should be personalized [3]. Various factors may influence the decision to treat mild SCH. Hence, Clinicians should consider the patients' age, the risk of progression to overt disease, the quality of life, the cognitive, metabolic and cardiovascular risk factors and the presence of associated co morbidities [4].

Although large randomized trials are needed, evidence suggests that treatment of mild SCH should probably be avoided in patients older than 60 years of age because there is no evidence that these patients are symptomatic and levothyroxine treatment does not improve their quality of life [5,6]. However, some data indicate that treatment of subclinical disease results in lipid profile improvement, but there is no evidence that this improvement is associated with a decrease in cardiovascular or all-cause mortality in elderly patients [2,6,7]. More importantly, it is not clear whether the thyroid hormone replacement can improve the survival of the elderly with SCH. Therefore, we propose a large-scale, preferably multicenter, randomized, placebo-controlled trial to conclusively show that effect of levothyroxine therapy on survival in the elderly, particularly the oldest olds. This can determine the impact of thyroid hormone

replacement on survival and if does not affect the survival then this treatment should be reconsidered.

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